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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,143

03/29/2006

David E. Penna

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EXAMINER

CORRIELUS, JEAN B

ART UNIT

PAPER NUMBER

2611

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,143	Applicant(s) PENNA ET AL.	
	Examiner JEAN B. CORRIELUS	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-10, 13-20, 22-26, 28-31, 34-42, 44-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10, 13-20, 22-24, 30, 37-40, 42-62 is/are rejected.
- 7) ☒ Claim(s) 25,26,28,29,31,34-36 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/30/11 and 3/31/11</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in United Kingdom on 10/4/03. However, the certified copy of the original application filed on 3/29/06 is not fully legible, as some text are blurred and even cut off. Accordingly, the priority claim has been denied.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Information Disclosure Statement

3. The information disclosure statement filed 3/31/11 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because

- (i) A concise explanation of the relevance, as it is presently understood by the individual designated in § 1.56(c) most knowledgeable about the content of the information, of each patent, publication, or other information listed that is not in the English language. The concise explanation may be either separate from applicant's specification or incorporated therein.

It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement

or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the fourth paragraph of 35 U.S.C. 112:

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

5. Claims 10 and 45-62 are rejected under 35 U.S.C. 112, fourth paragraph, for effectively removing limitations from a base claim.

Base claim 1 recites “dynamically selecting the arrangement of image data for successive pictures of said sequence in said memory sub-system according to at least one of: measured characteristics of said image data, measured characteristics of the performance of said processing system, and known characteristics of subsequent processing of said image data within said image processing system”. However, **claim 45** recites “**the dynamic selection** is performed according to the **variability of motion vectors encoded within the received data**”, by reciting that “**the dynamic selection** is performed according to the **variability of motion vectors encoded within the received data**”, the limitation, as underlined above, are effectively removed from the base claim.

Claims 10, 46-53 are similarly analyzed, respectively.

As per claim 54, see rejection of claim 1.

Claims 55-62, see rejection of claims 46-53, respectively.

Any claim whose base claim is rejected is likewise rejected.

6. Claims 1-5, 7-10, 13-20 and 45-53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 recites **“dedicated hardware and processor** to dynamically select....”. However, the specification, as filed, does not provide support for such limitation as claimed.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claim 44 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 44 is directed to a “computer readable instruction medium”. Under the broadest possible interpretation, the “computer readable instruction medium” is interpreted to include “signal per se”, “carrier wave” and the like. However, examiner notes that claims directed to such subject matter are non-statutory. Accordingly, claim 44 is non-statutory. Such rejection can be overcome by inserting “non-transitory” before “computer”.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 22, 44, 46 and 54-62 are rejected under 35 U.S.C. 102(b) as being anticipated by Naimpally et al US patent No. 5,874,995.

As per claim 1, Naimpally teaches a method and apparatus fig. 2 comprising circuitry that configures the memory to allocate data areas suitable for decoding signals either in progressive or interlaced format (dynamically selecting the arrangement of image data for successive pictures of said sequence in said memory) according to the produced (measured) indication signal (characteristics of said image data). The detected (measured) characteristics is a picture type (progressive or interlace) (Note col. 2, lines 55-65). Note all that the additional limitation, except the picture format, recited in the claim (the underlined portion) is not required for patentability and therefore will not be addressed.

As per claim 22, see claim 1.

As per claim 44, see claim 1.

As per claim 46, see claim 1.

As per claim 55, see claim 22.

As per claims 54, 56 -62, examiner notes that there is no structural difference between the prior art structure and the structure of the invention as recited in each of

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claims 54-62, respectively. Therefore, it is the examiner's position that the prior art structure is capable of being configured to perform the additional limitation recited in each of claims 54-62, respectively. Note MPEP 2114.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2-3, 9, 18, 20, 23-24, 30 and 37-40, 42, 45, and 47-53 are rejected under 35 U.S.C. 103(a) as being unpatentable Naimpally et al US patent No. 5,874,995.

As per claim 2, Naimpally et al teaches every feature of the claimed invention. But does not explicitly teach the further limitation of constructing the memory from paged memory. However, examiner noted that constructing a memory from paged memory is well established in the art. It would have been obvious to one skill in the art to incorporate such a teaching in Naimpally et al so as to enhanced processing of the image stored in the memory.

As per claim 3, one skill in the art would have been motivated to provide a cache memory in addition to the main memory, the system efficiency would have been improved since the cache memory would have allowed easy access to previously stored files.

As per claim 9, it would have been obvious to one skill in the art to use averaged technique in measuring the image characteristics so as to enhance the accuracy of the system.

as per claim 18, it would have been obvious to one skill in the art to use a memory that include cache memory and a main memory and to use cache handling function so as to allow easy retrieval and storing of input signal for added efficiency.

As per claim 20, it would have been obvious to activate cache pre-fetching selectively, so as to empty content of memory where such content is not longer needed.

As per claim 23, see claim 2.

As per claim 24, see claim 3.

As per claim 30, see claim 9.

As per claim 37, one skill in the art would have been motivated to implement the system in the manner recited in claim 37 in order to minimize production cost since less hardware would have been used.

As per claim 38, one skill in the art would have been motivated to implement the selecting means as recited in the claim for increased performance.

As per claim 39, see claim 38.

As per claim 40, see claim 18.

As per claim 42, it would have been obvious to activate cache pre-fetching selectively, so as to empty content of memory where such content is not longer needed.

as per claims 45, 47-53, it would have been obvious to one skill in the art to perform dynamically selection based on the variability of motion vectors encoded within

the received data/data cache stall rates for a cache memory in the memory subsystem/ according to processor utilization/ quality of service/a bandwidth link feeding data into or out of said image processing system/ encoded data size per picture of the sequence/advance information relating to the content of the image stream, as the result would have been predictable as it would have enabled the system to use processing resources efficiently.

Allowable Subject Matter

13. Claims 25-26, 28-29, 31, 34-36 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

14. Applicant's arguments filed 3/30/11 have been fully considered but they are not persuasive. Applicant argues that the certified copy of the original foreign application, although some lines are blurred and even cut off, should be approved because it is the best available copy. However, examiner notes that a copy of the foreign application in which lines are blurred or even cut off is not a defect that can be waived. Applicant is required to submit a **fully legible** certified copy of the original application for further consideration.

Applicant further alleges that "it is respectfully submitted that Naimpally fails to teach or suggest any of the aforementioned limitations. Instead, Naimpally discloses partitioning the memory in different configurations depending upon whether the signal is in an interlace format or a progressive format (see Abstract). This memory partitioning

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does not teach or suggest dynamically selecting the arrangement of image data for successive pictures in a memory sub-system according to the variability of motion vectors encoded within received data, the picture type, the image resolution, the data cache stall rates for a cache memory in the memory sub-system, the processor utilization, the quality of service or other qualitative measurements that are perceptible to an end user of content being processed, the bandwidth of a link feeding data into or out of said image processing system, the encoded data size per picture of the sequence, or the advance information relating to the content of the image stream contained in a data file. It is therefore respectfully submitted that claims 1, 22 and 44 as amended are not anticipated by Naimpally.” However, examiner notes that at, at least col. 2, lines 55-65, Naimpally teaches the memory is selectively configured based on whether signal format is progressive or interlace (picture type) and examiner further notes that not all the limitation are required to be present in the reference because the presence of the term “at least one”. As the term suggest, one of such limitation is required to be in the claim to meet the claim features following “at least one”.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN B. CORRIELUS whose telephone number is (571)272-3020. The examiner can normally be reached on Monday-Thursday from 9:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jean B Corrielus/
Primary Examiner, Art Unit 2611